

UNIVERSITY OF HAWAII

Environmental Center
Office of the Director

MEMORANDUM

July 9, 1973

TO: Dr. Henri P. Minette
Deputy Director for Environmental Health Programs
Department of Health

FROM: Doak C. Cox, Director
U.H. Environmental Center

PROPOSED AMENDMENTS TO PHR CHAPTS. 37 AND 37-A

We appreciate the receipt of copies of the 1 June drafts of amended versions of Public Health Regulations Chapter 37 (then proposed for amendment as Chapt. 45) and Chapter 37-A submitted by Shinji Soneda 8 June, and the 2 July revised drafts of the two chapters (the first retaining the Chapt. 37-A designation) submitted by you 3 July. We regret that University reviews of these proposed amendments could not be completed by the 29 June deadline set by Mr. Soneda. Water Resources Research Center personnel are still engaged in their review, and have been in consultation with DOH staff. Some comments may, however, be of more use to you now than later. Hence, I am submitting what is mainly a personal commentary, although it has been looked over by Jerry Johnson of the Environmental Center and by Hiroshi Yamauchi of WRRC.

CHAPTER 37

General comment

Essentially, what is accomplished by the very complete revision of Chapter 37 is to place the entire State water quality regulatory structure within the framework of the federal law PL 92-500. To a certain extent this is unavoidable if the State is to have delegated back to it by EPA the powers of actual implementation. However, it is important that the State retain as much control of the water quality standards, effluent standards, and general pollution control implementation as is possible under the federal act. In particular, we call attention to the need to retain State authority over the adoption and amendment of standards. The entire draft of the proposed amended Chapt. 37 much too slavishly reproduces the EPA guidelines for implementation of PL 92-500 without addressing itself primarily to the needs of the State.

Chapter 37

I believe that because the topic remains the same as that of present Chapter 37, PHR, the present chapter number should be retained.

1(u) Applicable water quality standards (p. 6)

This definition would include standards already promulgated by the state and approved by the Administrator, as well as standards promulgated by the Administrator. It makes no provision for the future amendment of standards by the state. Such provision should be included.

1(w) Minor discharge (p. 7)

The second criterion, "does not affect the waters of any other state" has no applicability in Hawaii. The phraseology related to multiple discharges from the same facility has no significance unless "facility" is defined.

2. General policy of water quality standards (p. 7)

This section would seem better titled "General policy on water quality" because it deals with policy independent of standards.

In the last line of p. 8, the phrase "highest and best degree of waste treatment practicable under existing technology" would be best replaced by the phrase "best practicable technology." As you know, we have given much consideration to the meaning of the phrase "best practicable technology," showing that the best is by no means necessarily the most intensive. We hope that the retention of the word "highest" is not intended to signify that most intensive practicable treatment is to be required, but we consider it desirable that the phraseology be uniform with that elsewhere in Chaps. 37 and 37-A.

We believe that it would be appropriate to require a public hearing before the Director finds that a lowering of water quality is justifiable.

3.e. NPDES filing fees

In subsec. (3) p. 12, how can there be a transfer from one location to another if there is no alteration to the waste outlet? The circumstances under which the subsection would be applicable are not clear.

4. General prohibition (p. 14)

This section and the General Policy (Sec. 2) are the most important sections in Chapt. 37. All of the rest of the sections are devoted to explanations of what these sections mean and how they are to be implemented. Yet there is no explicit key how the other sections relate to this. Thirteen of the 20 sections of the proposed amended chapter relate to NPDES permits and most of the rest of the sections refer to NPDES permits in the text. Yet the prohibition in this section is phrased in the general terms of disposal of wastes or equipment in so far as which would be pollution "or violate any water quality permit or term or condition thereof without first securing

July 9, 1973

approval in writing from the Director." Are there to be other types of permits than those under the NPDES? Is the "approval in writing of the Director" intended to cover his establishment of zones of mixing? Are there other kinds of approval which he may give? How are the standards in Chapter 37-A tied in?

Further, as now drafted, the section seems so strict as to be unenforceable. For example, swimming has been proved to result in bacterial contamination of the water. Hence any swimmer proposing to swim in the waters of the State would have to secure approval in writing from the director. There is a need for a qualifying phrase such as "significant."

15. Issuance of NPDES permit: (a) Approval (p. 34)

We assume that in subsec. (3) "applicable water quality standards" refers to State as well as federal standards and, in the case of State standards, to the entire Chapter 37-A: Water Quality Standards, including provision for zones of mixing.

19. Application of effluent standards, etc.: (b) Issued NPDES permit (pp. 40-41)

See comment on 15.(a)(3). It is essential that such provision be made.

26. Monitoring (pp. 54 et seq.)

The provisions of this section appear to be restricted to monitoring of discharges. We believe that the Director should be authorized also to require monitoring of receiving waters, where the value of such monitoring justifies its cost.

CHAPTER 37-A

5.A. Classification: Coastal water areas (pp. 7 et seq. and maps)

We note that considerable extensions of the Class AA waters are proposed on Niihau, Lanai, Maui, and Hawaii and modest extensions on Molokai and Kauai. On the grounds that much of the extension covers waters which are essentially in pristine conditions now, they appear appropriate. We call attention, however, to the fact that the waters in the proposed extension, like the waters now classified Class AA do not meet the present standards in some respects. The problem, we believe, lies not only in the existing or proposed classification but in the standards as well. Detailed commentary is beyond the scope of the present review.

July 9, 1973

In the listing of Class AA waters on Oahu (p. 7) Kaneohe Bay should be amended to read "Kaneohe Bay except for the small boat harbors identified in subsec. (c)." There may be other local Class B exceptions to larger Class AA designations.

6.A. Basic standards

1. (p.15). The rewording in the 2 July draft, prohibiting discharge of "Materials that will settle to form sludge and bottom deposits," is unsatisfactory. Natural sediments will form deposits but natural sediments cannot be removed. The wording in the 1 June draft was also unsatisfactory because "controllable sources" are not "substances attributable to discharges or wastes." I would suggest something like: "1. Materials from domestic, industrial, or other controllable sources that will settle to form sludge or bottom deposits in amounts sufficient to be unsightly, putrescent, or odorous."

3. (p.16). The addition of the phrase "in amounts sufficient to change color, turbidity, or other conditions in the receiving waters" without qualification would make this section unenforceable. Certain extents of turbidity change are, for example, specifically tolerated by the standards. The qualification in the 1 June draft should be added: "to such a degree as to create a public nuisance or in amounts sufficient to interfere significantly with any beneficial use of the water" (underlined word added).

6.B. Specific standards

1. Microbiol. requirements, p. 20, para. 3: What is meant is probably "where a 30-day period is specified," not "were a 30-day period is specified."

3. Nutrient materials, p. 21.

It is questionable that the current state of knowledge of nutrient concentrations in streams of the state justifies the adoption of a phosphorus standard for waters of Classes 1 and 2. Tolerance limits might logically be set to changes in the ratio of nitrate to phosphate phosphorus and to the ratio of ortho-phosphorus to total phosphorus, if adequate information on the effects of such changes were available. It is absurd to allow no changes in the ratios whatever. The reference to NO₂-N in the paragraph at the bottom of p. 21 probably means NO₃-N (nitrate nitrogen).

8. Radio nuclides

The physically and economically feasible limitation is internally contradictory and unsatisfactory. Physical feasibility is presumably much more restrictive than economical feasibility, but how is economical feasibility to be determined when the detriments of the radio nuclides are not quantitatively determinable?

Dr. Henri P. Minette

5

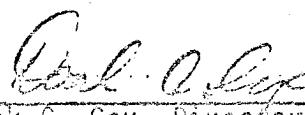
July 9, 1973

7. Zones of mixing

(b) (p. 26). Use of a zone of mixing has no effect on water quality standards, but only on water quality. The review should not stop with the effects on water quality, but should be much more concerned with the ecological effects.

(d)(3)(p. 27). Wording should be something on the order of: "Compliance with the normal water quality standards within an area sought as a zone of mixing would produce serious hardships . . ."

(f)(2)(p. 28) and (g) (p. 28). No reason for shortening the maximum term for a zone of mixing from the present 10 years to the proposed 5 years is apparent.


Doak C. Cox, Director

cc: H. Yamauchi, WRRC
J. Johnson, EC